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Atty. Docket: UCONAP/226/US

In re patent application of first named inventor: Alexandros Makriyannis

Application No.: 10/790,498 Examiner: Not Yet Assigned

Filing Date: March 1, 2004 Group Art Unit: 1614

For: Novel Pyrazole Analogs Acting on Cannabinoid Receptors

### TRANSMITTAL LETTER

Commissioner for Patents, U.S. Patent and Trademark Office, 2011 South Clark Place, Customer Window, Crystal Plaza 2, Lobby, Room 1B03, Arlington, VA 22202

Sir, enclosed herewith is (are):

- Information Disclosure Statement and references cited therein
- return postcard

It is hereby petitioned that any required extension of time be granted for filing the enclosed papers. An extension of 0 month(s) having a fee of \$0 appears required.

☒ If checked, claims are being amended.

	No. of claims remaining after amendment	Highest no. of claims previously paid for	no. extra	claim fee	subtotal
Total				\$	\$0.00
Independent				\$	\$0.00
Total claim fees					\$ 0.00

☐ If checked, a check in the amount of \_\_\_\_\_ is attached. Please credit any overpayment to Deposit Account 16-2563 of Alix, Yale & Ristas, LLP.

The Commissioner is hereby requested and authorized to charge Deposit Account 16-2563 of Alix, Yale & Ristas, LLP for any required extension fee and for any other fee, not enclosed herewith, due for any reason during the pendency of this application or in connection with the accompanying document, including (a) any filing fees under 37 CFR 1.16 for the presentation of extra claims and (b) any patent application processing fees under 37 CFR 1.17. A duplicate copy of this letter is enclosed.

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The above signatory certifies that this correspondence is being deposited on the date below with the United Parcel Service addressed to "Commissioner for Patents, U.S. Patent and Trademark Office, 2011 South Clark Place, Customer Window, Crystal Plaza 2, Lobby, Room 1B03, Arlington, VA 22202"

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Attorney Docket: UCONAP/226/US

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re patent application of: Alexandros Makriyannis et al

Application No.: 10/790,498 Examiner: Not Yet Assigned

Filing Date: 03/01/2004 Group Art Unit: 1614

For: Novel Pyrazole Analogs Acting on Cannabinoid Receptors

Commissioner for Patents, U.S. Patent and Trademark Office, 2011 South Clark  
Place, Customer Window, Crystal Plaza 2, Lobby, Room 1B03, Arlington, VA 22202

Sir:

**Information Disclosure Statement**

Applicant submits herewith patents, publications or other information of which they are aware and which they believe may be material to the examination of the above-identified application and in respect of which there may be a duty to disclose in accordance with 37 CFR 1.56.

This Information Disclosure Statement is not intended to constitute an admission that any patent, publication or other information referred to herein or submitted herewith is "prior art" for this invention unless specifically designated as such.

In accordance with 37 CFR 1.97(g) and (h), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(b) exists.

For US national applications filed after June 30, 2003 and International applications that have entered the national stage after June 30, 2003 a copy of a cited US patent or cited US patent publication is NOT required. See OG Notices: 5 August 2003.

Accordingly, no copies of a cited US patent or cited US patent publication are enclosed for these applications. A copy of each item other than a US patent or a US patent publication listed on the attached INFORMATION DISCLOSURE CITATION IN AN APPLICATION is supplied herewith.


Citations in bold type and having a name preceded with \*1\* indicate references which are believed to be more closely related to the claimed subject matter. This indication is not meant to indicate or imply any position with respect to the remaining references.

Citations in italics and having a name preceded with \*\*\* indicate references for which Applicant has no copy to submit. If a copy of any of these references is procured the same will be filed in a subsequent IDS.

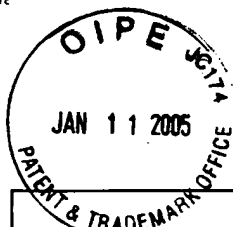
Respectfully submitted,

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<b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b>  <i>mailed 1-6-05</i>	Application No. 10/790,498	Inventor Alexandros Makriyannis et al	
	Title Novel Pyrazole Analogs Acting on Cannabinoid Receptors		
	Filing Date 03/01/2004	Group Art Unit 1614	Docket No. UCONAP/226/US

### UNITED STATES PATENT DOCUMENTS

Examiner Initial-date	Document No.	Date	Name	Class
	09/600786	11/24/99	Makriyannis et al (copy not included, this is the U.S. National Phase of the Int'l Application published as WO 00/32200 enclosed herewith)	
	09/698,071	10/30/00	Fride et al, (copy not included, this is the parent application for US Publication No. 2002/0173528, enclosed herewith)	
	09/701989	6/9/99	Makriyannis et al (copy not included, this is the U.S. National Phase of the Int'l Application published as WO 99/64389 enclosed herewith)	
	10/110865	10/18/00	<b>*1* Makriyannis et al (copy not included, this is the U.S. National Phase of the Int'l Application published as WO 01/29007 enclosed herewith)</b>	
	10/110830	10/18/00	Makriyannis et al (copy not included, this is the U.S. National Phase of the Int'l Application published as WO 01/28329 enclosed herewith)	
	10/110812	10/18/00	Makriyannis et al (copy not included, this is the U.S. National Phase of the Int'l Application published as WO 01/28497 enclosed herewith)	

INFORMATION DISCLOSURE CITATION IN AN APPLICATION			Application No. 10/790,498		Inventor Alexandros Makriyannis et al	
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			Filing Date 03/01/2004		Group Art Unit 1614	
	10/110862	10/18/00	Makriyannis et al (copy not included, this is the U.S. National Phase of the Int'l Application published as WO 01/28498 enclosed herewith)			
	10/111059	10/18/00	Makriyannis et al (copy not included, this is the U.S. National Phase of the Int'l Application published as WO 01/28557 enclosed herewith)			
	10/647544	8/25/03	Makriyannis et al			
	10/899,191	7/26/04	Makriyannis et al			
	2002/0173528	11/21/02	Fride et al			
	2003/0120094	6/26/03	Makriyannis et al			
	2003/0149082	8/7/03	Makriyannis et al			
	2004/0077649	4/22/04	Makriyannis et al			
	2004/0077851	4/22/04	Makriyannis et al			
	2004/0087590	5/6/04	Makriyannis et al			
	2004/0192667	3/1/04	Makriyannis et al			
	2004/0236101	10/28/02	Makriyannis et al (copy not included, this is the U.S. National Phase of the Int'l Application published as WO 03/35005 enclosed herewith)			
	2004/0236116	7/11/02	Makriyannis et al (copy not included, this is the U.S. National Phase of the Int'l Application published as WO 03/005960 enclosed herewith)			
	3041343	6/26/62	*1* Jucker et al			
	3465024	9/2/69	Brownstein et al			
	3573327	3/30/71	Miyano			
	3577458	5/4/71	Brownstein et al			
	3656906	4/18/72	Bullock			
	3838131	9/24/74	Gauthier			
	3886184	5/27/75	Matsumoto et al			
	3897306	7/29/75	Vidic			

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			Title Novel Pyrazole Analogs Acting on Cannabinoid Receptors			
			Filing Date 03/01/2004		Group Art Unit 1614	
	3915996	10/28/75	Wright			
	3928598	12/23/75	Archer			
	3944673	3/16/76	Archer			
	3946029	3/23/76	Descamps et al			
	3953603	4/27/76	Archer			
	4036857	7/19/77	Razdan et al			
	4054582	10/18/77	Blanchard et al			
	4087545	5/2/78	Archer et al			
	4087546	5/2/78	Archer et al			
	4087547	5/2/78	Archer et al			
	4088777	5/9/78	Archer et al			
	4102902	7/25/78	Archer et al			
	4152450	5/1/79	Day et al			
	4171315	10/16/79	Ryan et al			
	4176233	11/27/79	Archer et al			
	4179517	12/18/79	Mechoulam			
	4188495	2/12/80	Althuis et al			
	4208351	6/17/80	Archer et al			
	4278603	7/14/81	Thakkar et al			
	4282248	8/4/81	Mechoulam et al			
	4382943	5/10/83	Winter et al			
	4395560	7/26/83	Ryan			
	4497827	2/5/85	Nelson			
	4550214	10/29/85	Mehta			
	4758597	7/19/88	Martin et al			
	4812457	3/14/89	Narumiya			
	4876276	10/24/89	Mechoulam			
	4885295	12/5/89	Bell et al			
	5053548	10/1/91	Tanaka et al			
	5068234	11/26/91	D'Ambra et al			
	5147876	9/15/92	Mizuchi et al			
	5223510	6/29/93	Gubin et al			
	5284867	2/8/94	Kloog			
	5324737	6/28/94	D'Ambra et al			
	5434295	7/18/95	Mechoulam et al			
	5440052	8/8/95	Makriyannis et al			
	5462960	10/31/95	*1* Barth et al			

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	5489580	2/6/96	Makriyannis et al			
	5521215	5/28/96	Mechoulam			
	5532237	7/2/96	Gallant et al			
	5538993	7/23/96	Mechoulam			
	5576436	11/19/96	McCabe et al			
	5605906	2/25/97	Lau			
	5607933	3/4/97	D'Ambra et al			
	5618955	4/8/97	*1* Mechoulam et al			
	5624941	4/29/97	*1* Barth et al			
	5631297	5/20/97	Pate et al			
	5635530	6/3/97	Mechoulam			
	5688825	11/18/97	Makriyannis et al			
	5747524	5/5/98	*1* Cullinan et al			
	5744459		Makriyannis et al			
	5804601	9/8/98	Kato et al (appears equivalent to EP0737671)			
	5817651	10/6/98	D'Ambra et al			
	5872148	2/16/99	Makriyannis et al			
	5874459	2/23/99	Makriyannis et al			
	5925628	7/20/99	Lee et al			
	5932610	8/3/99	Shohami et al			
	5948777	9/7/99	*1* Bender et al			
	6013648	1/11/00	Rinaldi et al (appears equivalent to FR2735774)			
	6028084	2/22/00	*1* Barth et al			
	6096740	9/1/00	Mechoulam			
	6127399	10/3/00	*1* Yuan			
	6166066	12/26/00	Makriyannis et al			
	6284788	10/4/01	Mittendorf et al (appears equivalent to EP860168)			
	6391909	5/21/02	Makriyannis et al			
	6579900	6/17/03	Makriyannis et al			
	6610737	8/26/03	Garzon et al			

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		Title Novel Pyrazole Analogs Acting on Cannabinoid Receptors			
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<b>FOREIGN PATENT DOCUMENTS</b>					
Examiner Initial-date	Document No.	Date	Country	Name	Translation
	EP0276732	8/3/88	EP	Hoffman La Roche	
	<b>EP0444451</b>	<b>9/4/91</b>	<b>EP</b>	<b>*1* Sterling Drug (English bibliography, abstract and cover page, appears equivalent to US5068234 which is also cited)</b>	
	EP0471609	6/29/93	EP	Gubin et al, in French, front page only (English bibliography and abstract, appears equivalent to US5223510)	
	EP0737671	10/16/96	EP	Takeda Chemical Industries, front page only (bibliography, appears equivalent to US 5804601)	
	EP0860168	9/4/01	EP	Mittendorf et al, in German, front page only (including English bibliography, appears equivalent to US6284788)	
	FR2240003	5/27/75	FR	Matsumoto et al, in French (including English bibliography and abstract, appears equivalent to US3886184)	
	FR2735774	1/11/00	FR	Barth et al, in French (including English bibliography and abstract, appears equivalent to US6013648)	
	GB2027021A	2/13/80	GB	Mechoulam et al, in English (appears equivalent to US4282248)	
	IL1995-113228	9/22/99	IL	R. Mechoulam et al (abstract only)	

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			Title Novel Pyrazole Analogs Acting on Cannabinoid Receptors			
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	JP2304080	12/17/90	JP	Nakayama Hajime et al, in Japanese (including English bibliography and abstract)		
	JP57098228	6/18/82	JP	Noda et al, in Japanese (including English bibliography and abstract)		
	WO 00/32200	6/8/00		Makriyannis et al, in English		
	WO 01/28329	4/26/01		Makriyannis et al, in English		
	WO 01/28497	4/26/01		Makriyannis et al, in English		
	WO 01/28498	4/26/01		Makriyannis et al, in English		
	WO 01/28557	4/26/01		Makriyannis et al, in English		
	WO 01/29007	4/26/01		*1* Makriyannis et al, in English		
	WO 01/32169	5/10/01		Fride et al, in English		
	WO 02/058636	8/1/02		*1* Makriyannis et al, in English		
	WO 02/060447	8/8/02		Makriyannis et al, in English		
	WO 03/005960	1/23/03		Makriyannis et al, in English		
	WO 03/035005	5/1/03		*1* Makriyannis et al, in English		
	WO 03/063758	8/7/03		Garzon et al, in English		
	WO 03/064359	8/7/03		Garzon et al, in English		
	WO 94/12466	6/9/94		Mechoulam et al		English
	WO 97/00860	1/9/97		Rinaldi et al, in French (including English bibliography and abstract, appears equivalent to US6013648)		
	WO 99/57106	11/11/99		Makriyannis et al, in English		
	WO 99/57107	11/11/99		Makriyannis et al, in English		
	WO 99/64389	12/16/99		Makriyannis et al, in English		

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<b>OTHER DOCUMENTS</b>			
Examiner Initial - date	(Include Author, Title, Publication Date, Pertinent Pages, Etc.)		
	Abadji V., Lin S., Taha G., Griffin G., Stevenson L.A., Pertwee R.G., Makriyannis A.; "(R)-Methanadamide: a chiral novel anandamide possessing higher potency and metabolic stability"; J. Med. Chem.; 37(12); 1889-1893; 1994; CODEN: JMCMAR; ISSN: 0022-2623; XP002040932		
	Alo, B.I.; Kandil, A.; Patil, P. A.; Sharp, M. J.; Siddiqui, M. A.; and Snieckus, V. Sequential Directed Ortho Metalation-Boronic Acid Cross-Coupling Reactions. A general Regiospecific Route to Oxygenated Dibenzo[b,d]pyran-6-ones Related to Ellagic Acid, J. Org. Chem. 1991, 56, 3763-3768		
	*** Archer et al; "cannabinoids, synthesis approaches to 9-ketocannabinoids."; J. Org. Chem.; vol. 42; no. 13; 2277-2284; (1977)		
	Arnone M., Maruani J., Chaperon P, et al, Selective inhibition of sucrose and ethanol intake by SR141716, an antagonist of central cannabinoid (CB1) receptors, Psychopharmacol, (1997) 132, 104-106. <b>(abstract only)</b>		
	Barnett-Norris et al; "Exploration of biologically relevant conformations of anandamide, . . ."; J. Med. Chem.; vol. 41; 4861-4872; 1998		
	Beak, P.; and Brown, R A., The Tertiary Amide as an Effective Director of Ortho Lithiation, J. Org. Chem. 1982, 47, 34-36		
	Belgaonkar et al; "synthesis of isocoumarins"; Indian J. Chem; vol. 13; no. 4; 336-338; 1975 <b>(abstract only)</b>		
	Beltramo M., Stella N., Calignano A., Lin S. Y., Makriyannis A., Piomelli D; "Functional Role Of High-Affinity Anandamide Transport, as Revealed By Selective Inhibition"; Science; vol. 277; 1094-1097; 1997		
	Beltramo M., Stella N., Calignano A., Lin S. Y., Makriyannis A., Piomelli D; "Identification and Functional Role of High Affinity Anandamide Transport"; The Neurosciences Institute (1 page)		
	Beltramo M., Piomelli D; "Anandamide Transport Inhibition by the Vanilloid Agonist Olvanil"; European J. of Pharmacology; (1999); 364(1); 75-78 <b>(abstract only)</b>		
	Berdyshev EV, Cannabinoid receptors and the regulation of immune response. Chem Phys Lipids. 2000 Nov; 108(1-2):169-90		
	Berglund et al; "Structural requirements for arachidonylethanolamide interaction with CB1 and CB2 cannabinoid receptors: . . ."; Prostaglandins, leukotrienes and essential fatty acids; 59(2); 111-118; (1998).		

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	Bodnar, V.N., Lozinskii, M.O., Pel'kis, P.S.; "Synthesis fo 2,5-disubstituted 1,3,4-oxadiazoles and 1,4-dihydro-1,2,4,5-tetrazines"; Ukrainskii Khimicheskii Zhurnal (Russian Edition); 48(12); 1308-1311; 1982 <b>(abstract only)</b>		
	Bracey, M et al, Structural Adaptations in a Membrane Enzyme That Terminates Endocannabinoid Signaling. Science 2002; 298(5599): 1793-1796		
	Brenneisen R, Pgli A, Elsohly MA, Henn V. Spiess Y: The effect of orally and rectally administered Δ9 – tetrahydrocannabinol on spasticity, a pilot study with 2 patients. Int. J. Clin Pharmacol Ther. (1996) 34:446-452. <b>(abstract only)</b>		
	Brotchie JM: Adjuncts to dopamine replacement a pragmatic approach to reducing the problem of dyskinesia in Parkinson's disease. Mov. Disord. (1998)13:871-876. <b>(abstract only)</b>		
	Brown et al; "Synthesis and hydroboration of (-)-2-phenylapopinene, Comparison of mono(2-phenylapoisopinocampheyl)borane with its 2-methyl and 2-ethyl analogues for the chiral hydroboration of representative alkenes"; J. Org. Chem.; 55(4); 1217-1223; (1990)		
	Buckley NE, McCoy KI, Mpzey E et al, "Immunomodulation by cannabinoids is absent in mice deficient for the cannabinoid CB2 receptor"; Eur. J Pharmacol (2000) 396:141-149.		
	Burstein et al; "detection of cannabinoid receptors . . ."; Biochem. Biophys. Res. Commun.; vol. 176(1); 492-497; 1991 <b>(abstract only)</b>		
	Busch-Peterson et al; "Unsaturated side chain beta-11-hydroxyhexahydrocannabinol analogs"; J. Med. Chem.; 39; 3790-3796; (1996)		
	Calignano A, La Rana G. Diuffrida A, Piomelli D; "Control of pain initiation by endogenous cannabinoids"; Nature (1998) 394:277-291. <b>(abstract only)</b>		
	Calignano A., La Rana G., Beltramo, M., Makriyannis A., Piomelli D; "Potentiation of Anandamide Hypotension by the Transport Zinhibitor, AM404"; Eur. J. Pharmacol.; 1997; 337 R1-R2		
	Calignano A., La Rana G., Makriyannis A., Lin. S., Beltramo M., Piomelli D; "Inhibition of Intestinal Motility by Anandamide, an Endogenous Cannabinoid"; Eur. J. Pharmacol.; 1997; 340 R7-R8		
	Campbell FA et al; "Are cannabinoids an effective and safe treatment option in the management of pain? A qualitative systematic review"; BMJ. 2001 Jul 7;323(7303):13-6		

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	Title Novel Pyrazole Analogs Acting on Cannabinoid Receptors		
	Filing Date 03/01/2004	Group Art Unit 1614	Docket No. UCONAP/226/US
	Charalambous A. et al; "5'-azido Δ8-THC: A Novel Photoaffinity Label for the Cannabinoid Receptor"; J. Med. Chem., 35, 3076 - 3079 (1992)		
	Charalambous A. et al; "Pharmacological evaluation of halogenated . . ."; Pharmacol. Biochem. Behav.; vol. 40; no. 3; 509-512; 1991		
	Cheng et al; "Relationship Between the Inhibition Constant (Ki) and the concentration of Inhibitor which causes 50% Inhibition (IC50) of an Enzymatic Reaction"; Biochem. Pharmacol., 22, 3099-3102, (1973) <b>(abstract only)</b>		
	Cherest M., Luscindi X.; "The action of acetyl chloride and of acetic anhydride on the lithium nitronate salt of 2-phenylnitroethane . . ."; Tetrahedron; 42(14); 3825-3840; 1986; in French with English abstract		
	Cherest M., Lusinchi X.; "A novel electrophilic N-amidation via electron deficient complexes: action of ferric chloride on N-acetyloxyamides"; Tetrahedron Letters; 30(6); 715-718; 1989		
	Colombo G, Agabio R, Diaz G. et al; "Appetite suppression and weight loss after the cannabinoid antagonist SR141716"; Life Sci. (1998) 63-PL13-PL117. <b>(abstract only)</b>		
	Compton D.R. et al; "Pharmacological Profile Of A Series Of Bicyclic Cannabinoid Analogs: Classification as Cannabimimetic Agents"; J. Pharmacol. Exp. Ther.; 260; 201-209; 1992. <b>(abstract only)</b>		
	Compton et al; "Synthesis and pharmacological evaluation of ether and related analogues of delta8-, delta9- and delta9,11-tetrahydrocannabinol"; J. Med. Chem; vol. 34; no. 11; 3310-3316; 1991		
	Consroe P, Musty R, Rein J, Tillery W, Pertwee R; "The perceived effects of smoked cannabis on patents with multiple sclerosis"; Eur. Neurol. (1997) 38-44-48. <b>(abstract only)</b>		
	Coxon et al; "Derivatives of nopinone"; Aust. J. Chem.; 23; 1069-1071; (1970) <b>(abstract only)</b>		
	Crawley et al; "Anandamide, an endogenous ligand of the cannabinoid receptor, induces hypomotility and hypothermia in vivo in rodents"; Pharmacology Biochemistry and Behavior; vol. 46; 967-972; 1993		
	D'Ambra et al; "C-attached aminoalkylindoles: potent cannabinoid mimetics"; Bioorg. & Med. Chem. Lett., 1996, 6(1), 17-22		
	<i>*** D'Amour F.E. et al; "A Method For Determining Loss Of Pain Sensation"; J. Pharmacol. Exp. Ther.; 72; 74-79; 1941</i>		
	Demuynck L. et al; "Rearrangement of Indolo[2,3-a]quinolizidines to derivatives with E-azaaspidospermane skeleton"; Tetrahedron Letters; 30(6) 710-722; 1989; in French with English abstract		

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	Filing Date 03/01/2004	Group Art Unit 1614	Docket No. UCONAP/226/US
	DePetrocellis L, Melck D, Palmisano A. et al; "The endogenous cannabinoid anandamide inhibits human breast cancer cell proliferation"; Proc. Natl. Acad. Sci. USA (July 1998) 95:8375-8380.		
	Desarnaud F., Cadas H., Piomelli D.; "Anandamide amidohydrolase activity in rat brain microsomes"; J. Biol. Chem.; 270; 6030-6035; (1995)		
	Deutsch D.G. et al; "Fatty acid sulfonyl fluorides inhibit anandamide metabolism and bind to cannabinoid receptor"; Biochem. Biophys. Res. Commun. 231(1); 217-221; 1997; CODEN: BBRC9; ISSN:0006-291X; XP002040933		
	Deutsch D.G., Chin S.A.; "Enzymatic synthesis and degradation of anandamide, a cannabinoid receptor agonist"; Biochemical Pharmacology; 46(5); 791-796; 1993		
	Devane, W.A. et al; "Determination and Characterization of a Cannabinoid Receptor in a Rat Brain"; Mol. Pharmacol., 34, 605 - 613 (1988). <b>(abstract only)</b>		
	Di Marzo, V., Melck, D., Bisogno, T., DePetrocellis, L.; "Endocannabinoids: endogenous cannabinoid receptor ligands with neuromodulatory action"; Trends Neurosci. (1998) 21:521 - 528.		
	Di Marzo, V., Bisogno, T., Melck, D., Ross, R., Brockie, H., Stevenson, L., Pertwee, R., DePetrocellis, L., "Interactions between synthetic vanilloids and the endogenous cannabinoid system"; FEBS Letters; (1998); 437(3); 449-454. <b>(abstract only)</b>		
	Dodd, P.R. et al, A Rapid Method for Preparing Synaptosomes: Comparison with Alternative Procedures, Brain Res., 226, 107 - 118 (1981). <b>(abstract only)</b>		
	Dominiani et al; "Synthesis of 5-(tert-Alkyl)resorcinols"; J. Org. Chem. 42(2); 344-346; (1977)		
	Drake et al, "classical/nonclassical hybrid cannabinoids"; J. Med. Chem.; vol. 41(19); 3596-3608 (1998)		
	Edery et al; "Activity of novel aminocannabinoids in baboons"; J. Med. Chem.; 27; 1370-1373 (1984)		
	Eissenstat et al; "Aminoalkylindoles: structure-activity relationships of novel cannabinoid mimetics"; J. Med. Chem. 1995, Vol. 38, No. 16, pp. 3094-3105; XP 000651090		
	Fahrenholtz, K. E., Lurie, M. and Kierstead, AR. W.; "The Total Synthesis of dl-Δ9-Tetrahydrocannabinol and Four of Its Isomers"; J. Amer. Chem. Soc. 1967, 89(23), 5934-5941		

INFORMATION DISCLOSURE CITATION IN AN APPLICATION	Application No. 10/790,498	Inventor Alexandros Makriyannis et al	
	Title Novel Pyrazole Analogs Acting on Cannabinoid Receptors		
	Filing Date 03/01/2004	Group Art Unit 1614	Docket No. UCONAP/226/US
	Fahrenholtz; "The synthesis of 2 metabolites of (-)-delta eight-tetrahydrocannabinol"; J. Org. Chem.; vol. 37(13); 1972; XP002111824		
	Fisera, L., Kovac, J., Lesco, J., Smahovsky, V.; "Furan derivatives. Part CLVI. 1,3-dipolar cycloadditions of heterocycles. V. Reaction of C-acetyl-N-phenylnitrilimine with furan derivatives"; Chemicke Zvesti; 35(1); 93-104 1981 <b>(abstract only)</b>		
	Fride, E. & Mechoulam, R.; "Pharmacological activity of the cannabinoid receptor agonist, anandamide, a brain constituent"; European Journal of Pharmacology, vol. 231; 313-314; 1993.		
	Galiegue S et al. ; "Expression of central and peripheral cannabinoid receptors in human immune tissues and leukocyte subpopulations"; Eur J Biochem.; 1995 Aug 15;232(1):54-61. <b>(abstract only)</b>		
	Gareau, Y.; Dufresne, C.; Gallant, M.; Rochette, C.; Sawyer, N.; Slipetz, D. M.; Tremblay, N.; Weech, P. K.; Metters, K. M.; Labelle, M.; "Structure activity relationships of tetrahydrocannabinol analogs on human cannabinoid receptors"; Bioorg. Med. Chem. Lett. 1996, 6(2), 189-194		
	Gold et al; "A comparison of the discriminative stimulus properties of delta9-tetrahydrocannabinol and CP 55,940 in rats and rhesus monkeys"; J. Pharmacol. Exp. Ther.; vol. 262(2); 479-486; 1992		
	Green K.; "Marijuana smoking vs. cannabinoids for glaucoma therapy."; Arch. Ophthalmol. (1998) Nov. 116(11); 1433-1437. <b>(abstract only)</b>		
	Hampson, A.J., Grimaldi M. Axpirod J. Wink D; "Cannabidiol and (-) Δ9 tetrahydrocannabinol are neuroprotective antioxidants"; Proc. Natl Acad Sci. USA (July 1998) 95; 8268-8273.		
	Hanus et al; "Two new unsaturated fatty acid ethanolamides in brain that bind to the cannabinoid receptor"; Journal of medicinal Chemistry; 36(20); 3032-3034; 1993		
	Hargreaves, K. et al; "A new sensitive method for measuring thermal nociception in cutaneous hyperalgesia"; Pain; 32; 77-88; (1988) <b>(abstract only)</b>		
	*** Hemming M, Yellowlees PM; "Effective treatment of Tourette's syndrome with marijuana"; J. Psychopharmacol, (1993) 7:389-391.		
	Herzberg U, Eliav E, Bennett GJ, Kopin IJ; "The analgesic effects of R(+) WIN 55,212-2 mesylate, a high affinity cannabinoid agonist in a rat model of neuropathic pain"; Neurosci. Letts. (1997) 221; 157-160.		

INFORMATION DISCLOSURE CITATION IN AN APPLICATION	Application No. 10/790,498	Inventor Alexandros Makriyannis et al	
	Title Novel Pyrazole Analogs Acting on Cannabinoid Receptors		
	Filing Date 03/01/2004	Group Art Unit 1614	Docket No. UCONAP/226/US
	Hillard C. J., Edgemon, W. S., Jarrahan W., Campbell, W. B; "Accumulation of N-Arachidonylethanolamine (Anandamide) into Cerebellar Granule Cells Occurs via Facilitated Diffusion"; Journal of Neurochemistry; 69; 631-638 (1997)		
	Horrevoets A.J.G et al; "Inactivation of escherichia coli outer membrane phospholipase A by the affinity label hexadecanesulfonyl fluoride"; Eur. J. Biochem.; 198; 247-253; 1991		
	Horrevoets A.J.G et al; "Inactivation of reconstituted escherichia coli outer membrane phospholipase A by membrane-perturbing peptides results in an increased reactivity towards the affinity label hexadecanesulfonyl fluoride"; Eur. J. Biochem.; 198; 255-261; 1991		
	<b>*1* Howlett et al; "Azido and isothicyanato substituted aryl pyrazoles bind covalently to the CB1 cannabinoid receptor and impair signal transduction"; Journal of Neurochemistry; vol. 74(5) (2000) 2174-2181; XP001097394</b>		
	Howlett et al; "Stereochemical effects of 11-OH-delta 8 tetrahydrocannabinol-dimethylheptyl to inhibit adenylate cyclase and bind to the cannabinoid receptor"; Neuropharmacology; vol. 29(2); 161-165; 1990		
	Huffman et al; "3-(1',1'-dimethylbutyl)--deoxy-delta 8THC and related compounds: synthesis of selective ligands for the CB2 receptor"; Bioorganic and Medicinal Chemistry; vol. 7; 2905-2914; (1999)		
	Huffman et al; "Stereoselective synthesis of the epimeric delta 7- tetrahydrocannabinols"; tetrahedron; vol. 51(4); 1017-1032; (1995)		
	Huffman et al; "Synthesis of 5',11 dihydroxy delta 8 tetrahydrocannabinol"; Tetrahedron, vol. 53(39), pp 13295-13306 (1997)		
	Huffman et al; "Synthesis of a tetracyclic, conformationally constrained analogue of delta8-THC"; Bioorganic & Medicinal Chemistry; vol. 6(12); 2281-2288; 1998; XP002123230		
	Huffman et al; "Synthesis of both enantiomers of Nabilone from a common intermediate. Enantiodivergent synthesis of cannabinoids"; J. Org. Chem.; 1991, 56, 2081-2086		
	Joy JE, Wagtson SJ, Benson JA; "Marijuana and Medicine Assessing the Science Base"; National Academy Press, Washington, DC, USA (1999). <b>(abstract only)</b>		
	Kaminski NE; "Regulation of the cAMP cascade, gene expression and immune function by cannabinoid receptors"; J Neuroimmunol. 1998 Mar 15;83(1-2):124-32		

<b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b>	Application No. 10/790,498	Inventor Alexandros Makriyannis et al	
	Title Novel Pyrazole Analogs Acting on Cannabinoid Receptors		
	Filing Date 03/01/2004	Group Art Unit 1614	Docket No. UCONAP/226/US
	Kawase M. et al; "Electrophilic aromatic substitution with N-methoxy-N-acylnitrenium ions generated from N-chloro-N-methoxyamides: synthesis of nitrogen heterocyclic compounds bearing a N-methoxyamide group"; J. Org. Chem.; 54; 3394-3403; 1989		
	Khanolkar A., Abadji V., Lin S., Hill W., Taha G., Abouzid K., Meng Z., Fan P., Makriyannis A.; "Head group analogues of arachidonylethanolamide, the endogenous cannabinoid ligand"; J. Med. Chem.; vol. 39(22); 4515-4519; (1996)		
	Khanolkar et al; "Molecular probes for the cannabinoid receptors"; Chemistry and Physics of Lipids; 108; 37-52; (2000)		
	Klein T.W. et al, "The cannabinoid system and cytokine network"; Proc Soc Exp Biol Med. 2000 Oct; 225(1):1-8; <b>(abstract only)</b>		
	Klein TW et al, "Cannabinoid receptors and immunity"; Immunol Today; 1998 Aug; 19(8):373-81		
	Koutek B. et al; "Inhibitors of arachidonyl ethanolamide hydrolysis"; J. Biol. Chem.; 269(37); 22937-40; 1994; CODEN: JBCHA3; ISSN: 0021-9258; XP002040931		
	Kumar RN, et al; "Pharmacological actions and therapeutic uses of cannabis and cannabinoids"; Anesthesia, 2001, 56: 1059-1068 <b>(abstract only)</b>		
	<b>*1* Lan, R et al; "Structure activity relationships of pyrazole derivatives as cannabinoid receptor antagonists"; J. Med. Chem.; vol. 42(4); 769-776; (1999)</b>		
	Lang, W. et al; "Substrate Specificity and Stereoselectivity of Rat Brain Microsomal Anandamide Amidohydrolase"; J. Med. Chem.; vol. 42(5); 896-902; (1999)		
	Lavalle et al; "Efficient conversion of (1R, 5R)-(+)-alpha-pinene to (1S, 5R)-(-)-nopinene"; J. Org. Chem.; vol. 51(8); 1362-1365; (1986)		
	Lin S., Khanolkar A., Fan P., Goutopolous A., Qin C., Papahadjis D., Makriyannis A.; "Novel Analogues of arachidonylethanolamide (anandamide): affinities for the CB1 and CB2 Cannabinoid Receptors and Metabolic Stability"; J. Med. Chem.; vol. 41; 5353; 1998		
	Loev, B., Bender, P. E., Dowalo, F., Macko, E., and Fowler, P.; "Cannabinoids. Structure-Activity Studies Related to 1,2-Dimethylheptyl Derivatives"; J. Med. Chem.; vol. 16(11); 1200-1206; 1973		
	Lozinskii, M.O., Bodnar, V.N., Konovalikhin, S.V., D'yachenko, O.A., Atovmyan, L.O.; "Unusual transformations of arylhydrazonoyl chlorides of oxalic acid ethyl ester"; Izvestiya Akademii Nauk SSSr, Seriya Khimicheskaya; 11; 2635-2637; 1990 <b>(abstract only)</b>		

INFORMATION DISCLOSURE CITATION IN AN APPLICATION	Application No. 10/790,498	Inventor Alexandros Makriyannis et al	
	Title Novel Pyrazole Analogs Acting on Cannabinoid Receptors		
	Filing Date 03/01/2004	Group Art Unit 1614	Docket No. UCONAP/226/US
	Ludt, R.E. et al; "A comparison of the synthetic utility of n-butyllithium and lithium diisopropylamide in the metalations of N,N-dialkyltouamides"; J. Org. Chem.; 38(9); 1668-1674 (1973)		
	*** Maccarron M., <i>Endocannabinoids and their actions. Vitamins and Hormones 2002;65:225-255</i>		
	Mackie K., Devane W.A., Hille B.; "Anandamide, an endogenous cannabinoid, inhibits calcium currents as a partial agonist in N18 neuroblastoma cells"; Mol. Pharmacol; 44; 498-0503 (1993)		
	*** Markwell, M.A.K., S.M. Haas, L.L. Bieber, and N.E. Tolbert.; "A modification of the Lowry procedure to simplify protein determination in the membrane and lipoprotein samples." 1978; <i>Anal. Biochem.</i> 87:206-210.		
	Martin et al; "Behavioral, biochemical, and molecular modeling evaluations of cannabinoid analogs"; Pharmacol. Biochem. Behav.; vol. 40(3); 471-478; 1991		
	Martyn CN. Illis LS, Thom J.; "Nabilone in the treatment of multiple sclerosis"; Lancet (1995) vol. 345; pp. 579.		
	Matsumoto et al; "Cannabinoids 1.1-amino-and 1 mercapto-7,8,9,10-tetrahydro-6h-dibenzo[b,d]pyrans"; J. of Med. Chem.; vol. 20(1); 17-24; 1977; XP00211825		
	Maurer M, Henn V, Dittrich A, Hofmann A.; "Delta-9-tetrahydrocannabinol shows antispastic and analgesic effects in a single case double-blind trial."; Eur. Arch. Psychiat. Clin. Neurosci. (1990), 240:1-4. <b>(abstract only)</b>		
	Mavromoustakos, T. et al; "Studies on the thermotropic effects of cannabinoids on phosphatidylcholine bilayers using differential scanning calorimetry and small angle X-ray diffraction"; Biochimica et Biophysica Acta; vol 1281(2); 1996; XP00211823		
	Mechoulam et al; "Stereochemical Requirements for cannabinoid activity"; J. Med. Chem.; 23(10); 1068-1072; (1980)		
	Mechoulam et al; Structural Requirements for Binding of Anandamide Type Compounds to the Brain Cannabinoid Receptor; J. Med. Chem.; 1997; 40; 659-667		
	Mechoulam et al; "Synthesis of the individual, pharmacologically distinct, enantiomers of a tetrahydrocannabinol derivative"; Tetrahedron Asymmetry; 1: 311-314; (1990) <b>(abstract only)</b>		
	*** Mechoulam et al; "Synthesis of the individual, pharmacologically distinct, enantiomers of a tetrahydrocannabinol derivative."; <i>Tetrahedron Asymmetry</i> ; 1: 315-318; (1990)		
	*** Mechoulam, "Cannabinoids as therapeutic agents"; CRC press, 1986		

INFORMATION DISCLOSURE CITATION IN AN APPLICATION	Application No. 10/790,498	Inventor Alexandros Makriyannis et al	
	Title Novel Pyrazole Analogs Acting on Cannabinoid Receptors		
	Filing Date 03/01/2004	Group Art Unit 1614	Docket No. UCONAP/226/US
	<b>*1* Mechoulam et al; "Towards Cannabinoid drugs - Revisited"; Progress in Medicinal Chemistry; 35; 199-243; 7/3/1998</b>		
	Melck, D., Bisogno, T., DePetrocellis, L., Chuang, H., Julius, D., Bifulco, M., DiMarzo, V.; "Unsaturated Long-Chain N-Acyl-vanillyl-amides"; Biochemical and Biophysical Res. Commun.; (1999); 262(1); 275-284 (abstract only).		
	Meltzer et al; "An improved synthesis of cannabinol and cannabiorcol"; Synthesis; 1981:985 (1981)		
	Melvin et al; "Structure-Activity Relationships Defining the ACD-Tricyclic Cannabinoids Cannabinoid Receptor Binding and Analgesic Activity"; Drug Design and Discovery; 13(2); 155-166 (1995). <b>(abstract only)</b>		
	Melvin et al; "Structure-activity relationships for cannabinoid receptor-binding and analgesic activity: studies of bicyclic cannabinoid analogs"; Mol. Pharmacol.; 44(5); 1008-1015 (1993). <b>(abstract only)</b>		
	Merck Index; 11th edition; "Tetrahydrocannabinols" compound no. 9142; 1989		
	<b>*** Morgan Dr: Therapeutic Uses of Cannabis. Harwood Academic Publishers, Amsterdam. (1997).</b>		
	<b>*** Morris, S.; Mechoulam, R.; and Irene, Y., Halogenation of phenols and Phenyl ethers with Potassium Halides in the Presence of 18-Crown-6 on Oxidation with m-Chloroperbenzoic Acid, J. Chem. Soc., Perkin Trans. 1 1987, 1423-1427</b>		
	Muller-Vahl KB, Kolbe H, Schneider U, Emrich, HM Cannabis in movement disorders. Porsch. Kompicmentarmed (1999) 6 (suppl. 3) 23-27. <b>(abstract only)</b>		
	Muller-Vahl KB, Schneider U, Kolbe H, Emrich, HM.; "Treatment of Tourette's syndrome with delta-9-tetrahydrocannabinol." Am. J. Psychiat.; (1999); 156(3); 495.		
	<b>*** Nahas G, Marijuana and Medicine; 1999, Human Press Inc., Totowa, NJ</b>		
	Neunhoeffter O., Gottschlich R.; "Acylating activity of O-acylated hydroxylamine derivatives"; Justus Liebigs Ann. Chem.; 736; 100-109; 1970; in German with English abstract		
	Novak, J et al; "Cannabis, part 27, synthesis of 8-, 10- and 11-oxygenated cannabinoids; J. Chem. Soc. Perkin Trans.; 2867-2871; (1983) <b>(abstract only)</b>		
	Nye et al; "High affinity cannabinoid binding sites in brain membranes labelled with [H]-5'-trimethylammonium delta8-tetrahydrocannabinol"; J. Pharmacol. Exp. Ther.; vol. 234(3); 784-791; 1985		

INFORMATION DISCLOSURE CITATION IN AN APPLICATION	Application No. 10/790,498	Inventor Alexandros Makriyannis et al	
	Title Novel Pyrazole Analogs Acting on Cannabinoid Receptors		
	Filing Date 03/01/2004	Group Art Unit 1614	Docket No. UCONAP/226/US
	<b>*1* Pacheco M, et al; "Aminoalkylindoles: Actions On Specific G-Protein-Linked Receptors"; J. Pharmacol. Exp. Ther.; vol. 257, no. 1, pp. 170-183 and 172 Table (1991).</b>		
	Palmer et al; "Natural and Synthetic Endocannabinoids and Their Structure-Activity Relationships"; Current Pharmaceutical Design; 6; 1381-1397; (2000)		
	Papahatjis et al; "A new ring-forming methodology for the synthesis of conformationally constrained bioactive molecules"; Chemistry Letters, 192; (2001)		
	Papahatjis et al; "Pharmacophoric requirements for cannabinoid side chains: multiple bond and C1'-substituted delta8-tetrahydrocannabinols"; J. Med. Chem.; 41(7); 1195-1200; (1998)		
	Pertwee et al; "AM630, a competitive cannabinoid receptor agonist"; Life Sci. 1995, 56(23/24), 1949-1955; XP 000653566		
	Pertwee et al; "Pharmacological characterization of three novel cannabinoid receptor agonists in the mouse isolated vas deferens"; Eur. J. Pharmacol. 1995, 284, 241-247; XP-001041044		
	Pertwee et al; "Inhibitory effects of certain enantiomeric cannabinoids in the mouse vas deferens and the myenteric plexus preparation of guinea-pig small intestine"; Br. J. Pharmacol.; 105(4); 980-984 (1992). <b>(abstract only)</b>		
	Pertwee; Pharmacology of cannabinoid CB1 and CB2 receptors"; Pharmacol. Ther., vol. 74(2); pp129-180; (1997); XP002226467		
	Petrov, M.L., Terent'eva, N.A., Potekhin, K.A., Struchkov, Yu. T.; ".alpha.,.beta.-unsaturated thiolates and their analogs in cycloaddition reactions. XVIII. Reaction of (2-phenylethynyl)tellurolates with C-ethoxycarbonyl-N-Phenylnitrilimine"; Zhurnal Organicheskoi Khimii; 29(7); 1372-1378; (1993) <b>(abstract only)</b>		
	<b>*** Pinnegan-Ling D, Musty R.; Marinol and phantom limb pain: a case study. Proc Inv. Cannabinoid Rea. Sec. (1994):53.</b>		
	Pinto et al; Cannabinoid Receptor Binding and Agonist Activity of Amides and Esters of Arachidonic Acid; Mol. Pharmacol.; 1994; 46(3); 516-522.		
	Piomelli D., Beltramo M., Glasnapp S., Lin S.Y., Goutopoulos A., Xiw X-Q., Makriyannis A.; "Structural determinants for recognition and translocation by the anandamide transporter"; Proc. Natl. Acad. Sci. USA; 96; 5802-5807; (1999)		
	Pitt et al; "The synthesis of Deuterium, carbon-14 and carrier free tritium labelled cannabinoids"; Journal of Labelled Compounds; vol. 11(4); 551-575; 1975; XP002123229		

INFORMATION DISCLOSURE CITATION IN AN APPLICATION	Application No. 10/790,498	Inventor Alexandros Makriyannis et al	
	Title Novel Pyrazole Analogs Acting on Cannabinoid Receptors		
	Filing Date 03/01/2004	Group Art Unit 1614	Docket No. UCONAP/226/US
	Porreca F., Mosberg H.I., Hurst R., Hruby V.J., Burks T.F.; "Roles of mu, delta and kappa opiod receptors in spinal and supraspinal mediation of gastrointestinal transit effects and hot-plate analgesia in the mouse"; J. Pharmacol. Exp. Ther.; 230(2); 341-348; (1994). <b>(abstract only)</b>		
	Razdan et al; "Drugs derived from cannabinoids. 6. .Synthesis of cyclic analogues of dimethylheptylpyran"; J. Med. Chem.; vol. 19(5); 719-721; 1976 <b>(abstract only)</b>		
	Razdan et al; "Pharmacological and Behavioral Evaluation of Alkylated Anandamide Analogs"; Life Sci.; 1995; 56(23-24); 2041-2048		
	Reggio et al; "Characterization of a region of steric interference at the cannabinoid receptor using the active analog approach"; J. Med. Chem. United States; vol. 36(12); 1761-1771; 1993		
	Rhee, M. H.; Vogel, Z.; Barg, J.; Bayewitch, M.; Levy, R.; Hanus, L.; Breuer, A.; and Mechoulam, R.; "Cannabinol Derivatives: Binding to Cannabinoid Receptors and Inhibition of Adenylcyclase"; J. Med. Chem. 1997, 40(20); 3228-3233		
	Rice AS. Cannabinoids and pain. Curr Opin Investig Drugs. 2001 Mar;2(3):399-414. <b>(abstract only)</b>		
	Richardson JD, Aanonsen I, Hargreaves KM; "Antihyperalgesic effects of a spinal cannabinoids"; Eur. J. Pharmacol. (1998) 346:145-153.		
	Richardson JD, Kilo S. Hargreaves KM; "Cannabinoids reduce dryperalgesia and inflammation via interaction with peripheral CB1 receptors"; Pain (1998) 75:111-119.		
	<b>*1* Rinaldi-Carmona et al; "Biochemical and pharmacological characterization of SR141716A, the first potent and selective brain cannabinoid receptor antagonist"; Life Sci.; vol. 56(23/24); 1941-1947 (1995)</b>		
	<b>*1* Rinaldi-Carmona et al; "SR141716A, a potent and selective antagonist of the brain cannabinoid receptor"; FEBS Lett.; 350; 240-244; (1994)</b>		
	Rompp Chemie Lexikon; Falbe and Regitz; "band 1-A-C1, 8"; Aufl, Thieme Verlag; Stuttgart, S 569-570; 1989		
	Santus, Maria; "Studies on thioamides and their derivatives. IX. Synthesis of the derivatives of 1,2,4,5-tetrazine"; Acta Polonae Pharmaceutica; 50(2-3); 183-188; 1993 <b>(abstract only)</b>		
	Schatz AR et al; "Cannabinoid receptors CB1 and CB2: a characterization of expression and adenylate cyclase modulation within the immune system"; Toxicol Appl Pharmacol. 1997 Feb; 142(2):278-87		

INFORMATION DISCLOSURE CITATION IN AN APPLICATION	Application No. 10/790,498	Inventor Alexandros Makriyannis et al	
	Title Novel Pyrazole Analogs Acting on Cannabinoid Receptors		
	Filing Date 03/01/2004	Group Art Unit 1614	Docket No. UCONAP/226/US
	*** Schuel, H., Burkman, L.J., Picone, R.P.; Bo, T., Makriyannis, A., Cannabinoid receptors in human sperm. Mol. Biol. Cell., (1997) (8), 325a.		
	Serdarevich B., Caroll K.K., "Synthesis and characterization of 1- and 2- monoglycerides of anteiso fatty acids"; J. Lipid Res.; 7; 277-284; (1966)		
	Shawali, A.S., Albar, H.A.; "Kinetics and mechanism of dehydrochlorination of N-aryl-C-ethoxycarbonyl formohydrazidoyl chlorides"; Canadian Journal Of Chemistry; 64(5); 871-875; 1986 (abstract only)		
	Shen M. Thayer SA: Cannabinoid receptor agonists protect cultured rat hippocampal neurons from excitotoxicity. Mol. Pharmacol (1996) 54:459- 462.		
	Shim et al; "Three-dimensional quantitative structure-activity relationship study of the cannabimimetic (aminoalkyl)indoles using comparative molecular field analysis"; J. Med. Chem.; 1998, 41(23); 4521-4532; XP- 002212407		
	Shim et al; "Unified pharmacophoric model for cannabinoids and aminoalkylindoles derived from molecular superimposition of CB1 cannabinoid receptor agonists CP55244 and WIN55212-2"; ACS Symposium series, 1999 719 (rational drug design), 165-184; XP- 001095771		
	Showalter et al; "Evaluation of binding in a transfected cell line expressing a peripheral cannabinoid receptor (CB2): identification of cannabinoid receptor subtype selective ligands"; J. Pharmacol. Exp. Ther., 1996 278(3) 989-999; XP-001097918		
	Simiand J, Keane M, Keane PE, Soubrie P: SR 141716, A CB1 cannabinoid receptor antagonist, selectively reduces sweet food intake in marmoset. Behav. Pharmacol (1998) 9:179-181. (abstract only)		
	Smith P.B. et al; "The pharmacological activity of anandamide, a putative endogenous cannabinoid, in mice"; Journal of Pharmacology and Experimental Therapeutics; vol. 270(1):219-227; 1994		
	Terranova J-P, Storme J-J Lafon N et al; "Improvement of memory in rodents by the selective CB1 cannabinoid receptor antagonist, SR 141716"; Psycho-pharmacol (1996) 126:165-172 (abstract only)		
	*1* Tetko, I. V. et al; "Volume Learning Algorithm Artificial Neural Networks For 3D QSAR Studies"; J. Med. Chem.; vol. 44, no. 15 (2001) pp. 2411-2420, 2413, 2414 Table 1.		
	Tius et al; "Conformationally restricted hybrids of CP-55,940 and HHC: Stereo selective synthesis and activity"; Tetrahedron; 50 (9); 2671-2680; (1994) (abstract only)		

<b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b>	Application No. 10/790,498	Inventor Alexandros Makriyannis et al	
	Title Novel Pyrazole Analogs Acting on Cannabinoid Receptors		
	Filing Date 03/01/2004	Group Art Unit 1614	Docket No. UCONAP/226/US
	Twitchell, W. et al; "Cannabinoids inhibit N- and P/Q type calcium channels in cultured rat hippocampal neurons"; Journal of Neurophysiology; 78(1); 43-50; 1997 <b>(abstract only)</b>		
	Ueda, N., Endocannabinoid hydrolases. Prostaglandins & Other Lipid Mediators 2002;68-69:521-534 <b>(abstract only)</b>		
	Vogel Z., Barg J., Levy R., Saya D., Heldman E., Mechoulam R.; "Anandamide, a brain endogenous compound, interacts specifically with cannabinoid receptors and inhibits adenylate cyclase"; J. Neurochem.; 61(1) 352-355; (1993) <b>(abstract only)</b>		
	Wagner JA, Varga K, Jarai Z, Kunos G; "Mesenteric Vasodilation Mediated by Endothelia Anandamide Receptors"; Hypertension (1999) 33:429-434.		
	Watanabe, T.; Miyaura, N.; and Suzuki, A.; "Synthesis of Sterically Hindered Biaryls via the Palladium Catalyzed Cross-Coupling Reaction of Arylboronic Acids or their Esters with Haloarenes"; Synlett 1992, 207-210		
	Wiley et al; "Structure activity relationships of indole and pyrrole derived cannabinoids"; J. Pharmacol. Exp. Ther. 1998, 285(3), 995-1004; XP-001097982		
	Wilson et al; "9-nor-delta8-tetrahydrocannabinol, a cannabinoid of metabolic intersts"; J. Med. Chem.; 17(4); 475-476; (1974)		
	Wilson et al; "Analgesic properties of the tetrahydrocannabinols, their metabolites and analogs"; J. Med. Chem.; 18(7); 700-703; (1975)		
	Wilson et al; "9-nor-9-hydrohexahydrocannabinols. Synthesis, some behavioral and analgesic properties, and comparison with the tetrahydrocannabinols"; J. Med. Chem.; 19(9); 1165-1167; (1976)		
	Yamada et al; "(Aminoalkyl)indole isothiocyanates as potential electrophilic affinity ligands for the brain cannabinoid receptor"; J. Med. Chem. 1996, vol. 39(10), 1967-1974		
	Yan, Guo et al; "Synthesis and pharmacological properties of 11-hydroxy-3-(1'-1'-dimethylheptyl)hexahydrocannabinol: a high affinity cannabinoid agonist"; J. Med. Chem.; vol. 37(16); 2619-2622; (1994)		
	Yan Guo et al; "(-)-11-hydroxy-7'-isothiocyanato-1'-1'-dimethylheptyl-delta8-THC: a novel probe for the cannabinoid receptor in the brain"; J. Med. Chem.; 37(23); 3867-3870; (1994)		
Examiner		Date Considered	
<b>EXAMINER:</b> Initial if citation considered, whether or not citation is in conformance with MPEP §609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.			